

ABSTRACT OF THE DISCLOSURE

The present invention relates to hydrogel adhesives for attachment to mammalian skin which exhibit particularly good compatibility with skin, in addition to excellent attachment and painless removal properties including in excess moisture conditions. Such adhesives comprise 20-60 wt% of a cross-linked hydrophilic polymer, 5-80 wt% of a water-soluble nonionic humectant, and 10-85 wt% water. The hydrophilic polymer comprises 1-50 mole% of one or more strong-acid monomers having a pKa below 3 and 50-99 mole% of one or more weak-acid monomers, having a pKa above 3, the strong-acid monomer being essentially in its salt form, and the weak-acid monomer being at least 50 mole% in its acid form, and at least 5 mole% in its salt form. The pH of the hydrogel adhesive is from 3 to 6, preferably from 3 to 5.5, most preferably 3.5 to 5. The present invention also encompasses personal care products containing said adhesives, such as disposable waste management articles, disposable absorbent articles, and various functional articles for attachment to the human body.